

REMARKS/ARGUMENTS

Claims 1-24 are pending in this application. By this Amendment, Applicants AMEND claims 1 and 2 and CANCEL claims 25-33.

Claims 25-33 were withdrawn from further consideration by election by original presentation as allegedly being directed to an invention that is independent or distinct from the originally claimed invention. Claims 25-33 have been canceled as being directed to a non-elected invention. Applicants reserve the right to file a Divisional Application in order to pursue prosecution of claims 25-33.

Applicants' representative appreciates the Examiner extending the courtesy of the telephone interview on April 18, 2007. During the telephone interview, Applicants' representative asked how the Examiner considers the first groove 6a, 7a and the second groove 6b, 7b in Fig. 6 of Ishida et al. (U.S. 6,312,159) to be deviated from each other in the circumferential direction, and how the Examiner considers the first groove 5a and the second 5b groove in Fig. 7 of Ishida et al. to extend over both of the rod portion 2 and the cap portion 3.

With respect to Fig. 6 of Ishida et al., the Examiner alleged that the term "deviated" did not distinguish the first and second grooves recited in claim 1 from the first and second grooves disclosed by Ishida et al. In particular, the Examiner alleged that the dictionary definition of "deviated" requires a norm or standard as a basis for comparison, and no norm or standard has been defined in claim 1. Although Applicants do not necessarily agree with the Examiner, claim 1 has been amended to further define the first and second grooves to be "offset" from each other in the circumferential direction in accordance with the Examiner's suggestion in order to distinguish the first and second grooves recited in claim 1 from the first and second grooves shown in Fig. 6 of Ishida et al.

With respect to Fig. 7 of Ishida et al., the Examiner alleged that the recessed groove 21 of Ishida et al. extends the first groove 5a and the second groove 5b over both of the rod portion 2 and the cap portion 3 of Ishida et al. Although Applicants disagree with the Examiner for the reasons discussed below, claim 1 has been

amended to further define the first and second grooves in order to distinguish the first and second grooves recited in claim 1 from the first and second grooves and recessed groove shown in Fig. 7 of Ishida et al.

Claims 1-16 and 21-24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ishida et al. Claims 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishida et al. in view of Mukai et al. (U.S. 4,693,139).

Applicants respectfully traverse the rejections of claims 1-24.

Claim 1 has been amended to recite:

A split connecting rod that holds a crank-pin through a bearing having a first protrusion and a second protrusion, comprising:

a first locking groove that locks the first protrusion of said bearing when said bearing rotates forward in a circumferential direction of a crank-pin hole;

a second locking groove that locks the second protrusion of said bearing when said bearing rotates backward in the circumferential direction of the crank-pin hole; and

a large end portion including a rod portion and a cap portion; wherein

said first locking groove and said second locking groove are offset from each other in said circumferential direction;

said first locking groove and said second locking groove are arranged to extend over both of the rod portion and the cap portion when the large end portion is fractured and split into said rod portion and said cap portion; and

said first locking groove is sized so as to be capable of receiving said first protrusion along substantially an entire length of said first locking groove and said second locking groove is sized so as to be capable of receiving said second protrusion along substantially an entire length of said second locking groove. (emphasis added)

The Examiner alleged that Ishida et al. teach all of the features recited in claim 1, including the features of "said first locking groove and said second locking groove are deviated from each other in said circumferential direction" and "said first locking groove and said second locking groove are arranged to extend over both of the rod portion and the cap portion when the large end portion is fractured and split into said rod portion and said cap portion."

Although Applicants respectfully disagree, claim 1 has been amended to recite the features of "said first locking groove and said second locking groove are offset from

each other in said circumferential direction” and “said first locking groove is sized so as to be capable of receiving said first protrusion along substantially an entire length of said first locking groove and said second locking groove is sized so as to be capable of receiving said second protrusion along substantially an entire length of said second locking groove.” Support for these features can be found, for example, in Fig. 5b of the originally filed drawings which shows a first locking groove 201h and a second locking groove 201i offset in the circumferential direction, and in Figs. 6 and 7 of the originally filed drawings which show a locking groove 201h', 201i' sized so as to be capable of receiving a protrusion 213c', 213d' along substantially the entire length of the locking groove 201h', 201i' and a locking groove 201h, 201i sized so as to be capable of receiving a protrusion 213c, 213d along substantially the entire length of the locking groove 201h, 201i.

In contrast, Ishida et al. show in Fig. 6 a first groove 6a, 7a and a second groove 6b, 7b that extend equally in the circumferential direction of the crank-pin hole. That is, the first groove 6a, 7a of Ishida et al. starts and ends at the same locations in the circumferential direction as the second groove 6b, 7b of Ishida et al. starts and ends in the circumferential direction.

Second, Ishida et al. show in Fig. 7 a first locking groove 5a arranged only on the cap portion 3 and a second locking groove 5b arranged only on the rod portion 2. The recessed groove 21 of Ishida et al. is merely a starting point for breaking the cap portion from the rod portion, and cannot function as a locking groove for the protrusions 11a, 11b, 12a, 12b on the metal bearings since the protrusions are too large to fit into the recessed groove 21. Note, for example, the paragraph bridging columns 8 and 9 of Ishida et al., which states:

FIG. 7 is a view, similar to FIG. 5, showing the inner peripheral surface of the split connecting rod in which a connection groove is formed. Referring to FIG. 7, the recessed groove 21 is formed along the breaking plane C so as to connect the locking grooves 5a and 5b to one another. The locking grooves 5a and 5b are respectively formed on the lower and upper sides with respect to the breaking plane C at both the axial ends of the large-

diameter end portion 1a, **and any locking grooves communicated to the locking grooves 5a and 5b are not formed on the opposed sides thereof with respect to the breaking plane C** (see FIG. 5). (emphasis added)

Accordingly, Ishida et al. specifically teach that the first locking groove 5a and the second locking groove 5b do NOT extend over the breaking plane C, i.e., do NOT extend over both of the cap portion 3 and the rod portion 2 which are separated by the breaking plane C. Thus, the recessed groove 21 of Ishida et al. is not, and cannot be, a part of either of the first locking groove 5a or the second locking groove 5b.

Furthermore, Ishida et al. teach that the protrusion 12a on the metal bearing 10b which fits into the locking groove 5a engages with locking plane 17a and that the protrusion 11a on the metal bearing 10a which fits into the locking groove 5b engages with locking plane 17b. See, for example, column 7, lines 56-64 and column 8, lines 22-30 of Ishida et al. As clearly shown in Fig. 7 of Ishida et al., the locking planes 17a, 17b are coincident with the breaking plane C. Since the protrusions 12a, 11a do NOT cross the breaking plane C of Ishida et al., it is apparent that the locking grooves 5a, 5b also do NOT cross the breaking plane C.

Accordingly, Ishida et al. do not teach or suggest the features of "said first locking groove and said second locking groove are offset from each other in said circumferential direction" and "said first locking groove is sized so as to be capable of receiving said first protrusion along substantially an entire length of said first locking groove and said second locking groove is sized so as to be capable of receiving said second protrusion along substantially an entire length of said second locking groove," as recited in Applicants' claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Ishida et al.

The Examiner relied upon Mukai et al. to allegedly cure deficiencies of Ishida et al. However, Mukai et al. clearly fail to teach or suggest the features of "said first locking groove and said second locking groove are offset from each other in said

circumferential direction” and “said first locking groove is sized so as to be capable of receiving said first protrusion along substantially an entire length of said first locking groove and said second locking groove is sized so as to be capable of receiving said second protrusion along substantially an entire length of said second locking groove,” as recited in Applicants’ claim 1. Thus, Applicants respectfully submit that Mukai et al. fail to cure the deficiencies of Ishida et al. described above.

Accordingly, Applicants respectfully submit that Ishida et al. and Mukai et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in Applicants’ claim 1.

In view of the foregoing amendments and remarks, Applicants respectfully submit that claim 1 is allowable. Claims 2-24 depend upon claim 1, and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Dated: April 30, 2007

/Stephen R. Funk #57,751/
Attorneys for Applicant(s)

KEATING & BENNETT, LLP
8180 Greensboro Drive, Suite 850
Tyson’s Corner, VA 22102
Telephone: (703) 637-1480
Facsimile: (703) 637-1499

Joseph R. Keating
Registration No. 37,368

Stephen R. Funk
Registration No. 57,751